

# Rajiv Gandhi University of Health Sciences

M.B.B.S. PHASE - I Degree Examination - February 2007

Time: 3 Hrs.

[Max. Marks: 90]

## Biochemistry [Old Scheme]

QP Code - 1005

Your answers should be specific to the questions asked.  
Draw neat labeled diagrams wherever necessary.

### LONG ESSAY

**2 X 10 = 20 Marks**

1. Describe citric acid cycle. Explain the energetics and regulation of this cycle.
2. Describe the chemistry, sources, daily requirements, biochemical functions and deficiency manifestation of ascorbic acid.

### SHORT ESSAY

**10 X 5 = 50 Marks**

3. Key enzymes of gluconeogenesis.
4. Regulation of cholesterol synthesis.
5. Phospholipids and its significance.
6. Heteropolysaccharides.
7. Fate of Phenylalanine and products synthesized from tyrosine.
8. Classification of aminoacids based on nutritional significance and metabolic fate.
9. functions of Vitamin D.
10. Enzymes of clinical importance.
11. RNA
12. Sickle cell hemoglobin.

### SHORT ANSWERS

**10 X 2 = 20 Marks**

13. Name two conjugated proteins and its function in the body.
14. Normal total serum cholesterol level and clinical significance.
15. Give two examples for competitive enzyme inhibition.
16. Inhibitors of complex I of electron transport chain.
17. Daily requirement of Vitamin A and Vitamin E
18. Coenzymic forms and deficiency manifestation of niacin.
19. Name the enzyme defective in galactosemia and Von Gierke's disease.
20. Give an example for a nucleotide and its composition.
21. Function of Lysosomes
22. Name two proteolytic enzymes.

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